Project Name : Music Player in Android   **Academic Year : 2020-21**

Subject Name: Mobile Application Development   **Semester : Sixth**

LOKNETE. DR. BALASAHEB VIKHE PATIL
(PADMA BHUSHAN AWARDEE)
PRAVARA RURAL EDUCATION SOCIETY
PADMASHRI DR. VITHALRAO VIKHE PATIL
INSTITUTE OF TECHNOLOGY & ENGINEERING (POLYTECHNIC)
LONI

A STYDY ON

Music Player in Android

MICRO PROJECT REPORT

Submitted in June 2021 by the group of students

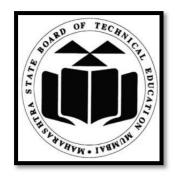| Sr. No	Roll No (Sem-iv)	Full name of Student	Enrollment No	Seat No (Sem-iv)
1	55	1. Kapse Sameer Bhimraj	1900300044	299602
2	47	2. Dalvi Kumar Subhash	1900300035	299594
3	30	3. Kapse Yashvardhan Sandeep	1800300330	299577

Under the Guidance of

[Prof. Sachin Bhosale**]**

in
Three Years Diploma Program in Engineering & Technology of Maharashtra
State Board of Technical Education, Mumbai (Autonomous)
ISO 9001:2008 (ISO/IEC-27001:2013)

at

[P.Dr.V.V.P. Polytechnic, Loni]

MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION, MUMBAI

Certificate

This is to certify that Mr. /~~Mrs.~~ KAPSE SAMEER BHIMRAJ

Roll No: 30 of **Sixth Semester** of Computer Science **Diploma in Engineering & Technology** at **[** P.Dr.V.V.P. Polytechnic, Loni**],** has completed the **Micro Project** satisfactorily in Subject **MAD** in the academic year 2019-2020 as per the MSBTE prescribed curriculum of I Scheme.

Place: loni   Enrollment No: 1900300044

Date: Exam Seat No: _____

(Prof. S.S.Bhosale)   (Prof. S.S.Bhosale)

Project Guide   **Head of the Department**   **Principal**

Head of
Institute

Acivity_Main.xml :

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <ListView
        android:id="@+id/listView"
        android:layout_width="0dp"
        android:layout_height="0dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java :

```java
package com.codewithharry.isangeet;

import androidx.appcompat.app.AppCompatActivity;

import android.Manifest;
import android.content.Intent;
import android.os.Bundle;
import android.os.Environment;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.Toast;

import com.karumi.dexter.Dexter;
import com.karumi.dexter.PermissionToken;
import com.karumi.dexter.listener.PermissionDeniedResponse;
import com.karumi.dexter.listener.PermissionGrantedResponse;
import com.karumi.dexter.listener.PermissionRequest;
import com.karumi.dexter.listener.single.PermissionListener;

import java.io.File;
import java.util.ArrayList;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        ListView listView;

        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        listView = findViewById(R.id.listView);
        Dexter.withContext(this)

.withPermission(Manifest.permission.READ_EXTERNAL_STORAGE)
                .withListener(new PermissionListener() {
                    @Override
                    public void
onPermissionGranted(PermissionGrantedResponse
permissionGrantedResponse) {

//                        Toast.makeText(MainActivity.this, "Runtime
permission given", Toast.LENGTH_SHORT).show();
                        ArrayList<File> mySongs =
fetchSongs(Environment.getExternalStorageDirectory());
                        String [] items = new
String[mySongs.size()];
                        for(int i=0;i<mySongs.size();i++){
                            items[i] =
mySongs.get(i).getName().replace(".mp3", "");
                        }
```

```java
                            ArrayAdapter<String> adapter = new
ArrayAdapter<String>(MainActivity.this,
android.R.layout.simple_list_item_1, items);
                            listView.setAdapter(adapter);
                            listView.setOnItemClickListener(new
AdapterView.OnItemClickListener() {
                                @Override
                                public void onItemClick(AdapterView<?>
parent, View view, int position, long id) {
                                    Intent intent = new
Intent(MainActivity.this, PlaySong.class);
                                    String currentSong =
listView.getItemAtPosition(position).toString();
                                    intent.putExtra("songList",
mySongs);
                                    intent.putExtra("currentSong",
currentSong);
                                    intent.putExtra("position",
position);
                                    startActivity(intent);
                                }
                            });


                    }

                    @Override
                    public void
onPermissionDenied(PermissionDeniedResponse
permissionDeniedResponse) {

                    }

                    @Override
                    public void
onPermissionRationaleShouldBeShown(PermissionRequest
permissionRequest, PermissionToken permissionToken) {
                        permissionToken.continuePermissionRequest();
                    }
                })
                .check();
    }

    public ArrayList<File> fetchSongs(File file){
        ArrayList arrayList = new ArrayList();
        File [] songs = file.listFiles();
        if(songs !=null){
            for(File myFile: songs){
                if(!myFile.isHidden() && myFile.isDirectory()){
                    arrayList.addAll(fetchSongs(myFile));
                }
                else{
                    if(myFile.getName().endsWith(".mp3") &&
!myFile.getName().startsWith(".")){
                        arrayList.add(myFile);
```

```
                    }
                }
            }
        }
        return arrayList;
    }
}
```

Activity_play_song.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".PlaySong">

    <ImageView
        android:id="@+id/imageView2"
        android:layout_width="256dp"
        android:layout_height="0dp"
        android:layout_marginTop="16dp"
        android:layout_marginBottom="44dp"
        app:layout_constraintBottom_toTopOf="@+id/textView"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:srcCompat="@drawable/logo" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginBottom="314dp"
        android:text="TextView"
        android:ellipsize="marquee"
        android:fadingEdge="horizontal"
        android:scrollHorizontally="true"
        android:gravity="center"
        android:marqueeRepeatLimit="marquee_forever"
        android:singleLine="true"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/imageView2" />

    <LinearLayout
        android:id="@+id/linearLayout2"
        android:layout_width="314dp"
        android:layout_height="198dp"
        android:orientation="horizontal"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintStart_toStartOf="parent">

        <ImageView
            android:id="@+id/previous"
            android:layout_width="wrap_content"
```

```xml
            android:layout_height="match_parent"
            android:layout_weight="1"
            app:srcCompat="@drawable/previous" />

        <ImageView
            android:id="@+id/play"
            android:layout_width="wrap_content"
            android:layout_height="match_parent"
            android:layout_weight="1"
            app:srcCompat="@drawable/pause" />

        <ImageView
            android:id="@+id/next"
            android:layout_width="wrap_content"
            android:layout_height="match_parent"
            android:layout_weight="1"
            app:srcCompat="@drawable/next" />
    </LinearLayout>

    <SeekBar
        android:id="@+id/seekBar"
        android:layout_width="371dp"
        android:layout_height="21dp"
        android:layout_marginBottom="32dp"
        app:layout_constraintBottom_toTopOf="@+id/linearLayout2"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Playsong.java:

```java
package com.codewithharry.isangeet;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.media.MediaPlayer;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageView;
import android.widget.SeekBar;
import android.widget.TextView;

import java.io.File;
import java.util.ArrayList;

public class PlaySong extends AppCompatActivity {

    @Override
    protected void onDestroy() {
        super.onDestroy();
        mediaPlayer.stop();
        mediaPlayer.release();
        updateSeek.interrupt();
    }

    TextView textView;
    ImageView play, previous, next;
    ArrayList<File> songs;
    MediaPlayer mediaPlayer;
    String textContent;
    int position;
    SeekBar seekBar;
    Thread updateSeek;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_play_song);
        textView = findViewById(R.id.textView);
        play = findViewById(R.id.play);
        previous = findViewById(R.id.previous);
        next = findViewById(R.id.next);
        seekBar = findViewById(R.id.seekBar);

        Intent intent = getIntent();
        Bundle bundle = intent.getExtras();
        songs = (ArrayList)
bundle.getParcelableArrayList("songList");
        textContent = intent.getStringExtra("currentSong");
        textView.setText(textContent);
        textView.setSelected(true);
        position = intent.getIntExtra("position", 0);
```

```java
        Uri uri = Uri.parse(songs.get(position).toString());
        mediaPlayer = MediaPlayer.create(this, uri);
        mediaPlayer.start();
        seekBar.setMax(mediaPlayer.getDuration());

        seekBar.setOnSeekBarChangeListener(new
SeekBar.OnSeekBarChangeListener() {
            @Override
            public void onProgressChanged(SeekBar seekBar, int
progress, boolean fromUser) {

            }

            @Override
            public void onStartTrackingTouch(SeekBar seekBar) {

            }

            @Override
            public void onStopTrackingTouch(SeekBar seekBar) {
                mediaPlayer.seekTo(seekBar.getProgress());
            }
        });

        updateSeek = new Thread(){
            @Override
            public void run() {
                int currentPosition = 0;
                try{

while(currentPosition<mediaPlayer.getDuration()){
                        currentPosition =
mediaPlayer.getCurrentPosition();
                        seekBar.setProgress(currentPosition);
                        sleep(800);
                    }
                }
                catch (Exception e){
                    e.printStackTrace();
                }
            }
        };
        updateSeek.start();

        play.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if(mediaPlayer.isPlaying()){
                    play.setImageResource(R.drawable.play);
                    mediaPlayer.pause();
                }
                else{
                    play.setImageResource(R.drawable.pause);
                    mediaPlayer.start();
                }
```

```java
            }
        });

        previous.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                mediaPlayer.stop();
                mediaPlayer.release();
                if(position!=0){
                    position = position - 1;
                }
                else{
                    position = songs.size() - 1;
                }
                Uri uri = Uri.parse(songs.get(position).toString());
                mediaPlayer =
MediaPlayer.create(getApplicationContext(), uri);
                mediaPlayer.start();
                play.setImageResource(R.drawable.pause);
                seekBar.setMax(mediaPlayer.getDuration());
                textContent =
songs.get(position).getName().toString();
                textView.setText(textContent);
            }
        });

        next.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                mediaPlayer.stop();
                mediaPlayer.release();
                if(position!=songs.size()-1){
                    position = position + 1;
                }
                else{
                    position = 0;
                }
                Uri uri = Uri.parse(songs.get(position).toString());
                mediaPlayer =
MediaPlayer.create(getApplicationContext(), uri);
                mediaPlayer.start();
                play.setImageResource(R.drawable.pause);
                seekBar.setMax(mediaPlayer.getDuration());
                textContent =
songs.get(position).getName().toString();
                textView.setText(textContent);

            }
        });

    }
}
```

ActivityMainfest.xml :

```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
        package="com.codewithharry.isangeet">

<uses-permission
android:name="android.permission.READ_EXTERNAL_STORAGE" />

<application
        android:requestLegacyExternalStorage="true"
                android:allowBackup="true"
                android:icon="@mipmap/ic_launcher"
                android:label="@string/app_name"
                android:roundIcon="@mipmap/ic_launcher_round"
                android:supportsRtl="true"
                android:theme="@style/Theme.ISangeet">
<activity android:name=".PlaySong"
        android:parentActivityName=".MainActivity"></activity>
<activity android:name=".MainActivity">
<intent-filter>
<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />
</intent-filter>
</activity>
</application>

</manifest>
```

Output: